Claims:

1. A device for electrolytically treating electrically conductive structures on surfaces of work pieces (**1**) the structures being electrically insulated against each other, by using a method comprising continuously conveying the work pieces (**1**) on a conveying path and in a direction of transport with the structures being electrolytically treated thereby, said device comprising:

a) at least one arrangement, comprising at least one electrode (**6, 14**) for contacting the work pieces (**1**) and at least one electrolysis region in a respective one of which at least one counter electrode (**4**) and the work pieces (**1**) are in contact with the processing liquid,

characterized in that

b) the at least one contacting electrode (**6, 14**) is disposed outside of the at least one electrolysis region and is not in contact with the processing liquid and

c) the at least one contacting electrode (**6, 14**) and the at least one electrolysis region are spaced so close together that small electrically conductive structures can electrolytically be treated.

2. The device according to claim 1, characterized in that electrically conductive structures of 5 cm can electrolytically be treated.

3. The device according to any one of the preceding claims, characterized in that at least two contacting electrodes (**6, 14**) are provided, at least one of them being disposed on one side of the electrolysis region and the at least other one on the other side of the electrolysis region.

4. The device according to claim 3, characterized in that the electrolysis region is so short that the electrically conductive structures are in constant electrical contact with one of the contacting electrodes (**6, 14**).

5. The device according to any one of the preceding claims, characterized in that it further comprises at least one processing module (**M, M1, M2, M3, M4, M5, M6**) containing the processing liquid and the at least one counter electrode (4), the work pieces (1) being conveyed there through in a horizontal direction of transport, the at least one processing module (**M, M1, M2, M3, M4, M5, M6**) comprising, on the entrance and on the exit side thereof respectively, at least one passage for the work pieces (1) to enter and to exit said module and the at least one contacting electrode (**6, 14**) being disposed on the passages.

6. The device according to any one of claims 1 – 4, characterized in that it further comprises at least one tank (**12**) containing the processing liquid and the at least one counter electrode (**4**) and that the conveying path leads via the surface of the processing liquid into the tank (**12**), to the at least one counter electrode (**4**) disposed within the processing liquid and from there, via the surface of the processing liquid again, out of the tank (**12**), the at least one contacting electrode (**6, 14**) being disposed on the surface of the processing liquid.

7. The device according to claim 6, characterized in that the conveying path repeatedly leads via the surface of the processing liquid into the tank (**12**), through the liquid and via the surface again out of the tank (**12**), being thereby turned round by deviating means (**18**).

8. The device according to any one of the preceding claims, characterized in that it comprises partition members (**21**) which comprise passages and sealing members (**7, 23**) for passage of the work pieces (1), the partition members (**21**) being disposed between the at least one contacting electrode (**6, 14**) and the processing liquid, said sealing members (**7, 23**) being disposed in such a manner that processing liquid can be prevented from coming into contact with the at least one contacting electrode (**6, 14**).

9. The device according to claim 8, characterized in that the sealing members are selected from the group comprising squeezing rollers (**7**), sealing lips (**23**) and scrapers.

10. The device according to any one of claims 8 and 9, characterized in that the at least one contacting electrode (**6, 14**) is secured to the partition walls (**24**).

11. The device according to any one of the preceding claims, characterized in that the at least one contacting electrode (**6, 14**) is selected from the group comprising rollers and brushes (**14**).

12. The device according to claim 11, characterized in that the rollers (**6**) have such a small diameter and the spacing between the longitudinal axis of the rollers (**6**) and the at least one electrolysis region is so small that electrically conductive structures of 2 cm can electrolytically be treated.

13. The device according to any one of the preceding claims, characterized in that between the at least one counter electrode (**4**) and the work pieces (**1**) is disposed an electrically non-conductive ion-permeable coating (**13**).

14. The device according to claim 13, characterized in that the coating (**13**) is disposed in so close proximity to the conveying path that the work pieces (**1**) touch the coating (**13**) as they are conducted past the at least one counter electrode (**4**), thus acting as a seal.

15. The device according to any one of the preceding claims, characterized in that the conveying path is inclined to the horizontal.

16. The device according to claim 15, characterized in that rinsing facilities are provided by means of which the at least one contacting electrode (**6, 14**) can be continuously or intermittently rinsed.

17. The device according to any one of the preceding claims, characterized in that the at least one counter electrode (**4**) and the at least one contacting electrode (**6, 14**) are elongate and are oriented substantially parallel to the conveying path and normal to the direction of transport.

18. The device according to any one of the preceding claims, characterized in that the at least one contacting electrode (**6, 14**) is cathodically polarized.

19. The device according to claim 18, characterized in that the at least one counter electrode (**4**) is an insoluble anode.

20. The device according to claim 19, characterized in that the anode (**4**) is a flood anode.

21. The device according to any one of the preceding claims, characterized in that the at least one contacting electrode (**6, 14**) and the at least one counter electrode (**4**) are disposed on a common carrier frame (**5**).

22. The device according to any one of the preceding claims, characterized in that it further respectively comprises at least one first and one second storing facility for storing the work pieces (**1**).

23. The device according to claim 22, characterized in that it further comprises conveying members (**18, 25**) for conveying the work pieces (**1**) through the device from the at least one first storage facility to the at least one second storage facility.

24. A method for electrolytically treating electrically conductive structures on surfaces of work pieces (**1**), the structures being electrically insulated against each other, the method comprising:

a) continuously conveying the work pieces (**1**) on a conveying path and in a direction of transport through at least one electrolysis region, said region containing at least one counter electrode (**4**) and processing liquid, and

b) bringing the work pieces (**1**) into contact with at least one contacting electrode (**6, 14**) outside of the at least one electrolysis region,

characterized in that

c) the at least one contacting electrode (**6, 14**) is prevented from contacting the processing liquid and

d) the spacing between the at least one contacting electrode (**6, 14**) and the at least one electrolysis region is adjusted to be so small that small electrically conductive structures can be electrolytically treated.

25. The method according to claim 24, characterized in that electrically conductive structures of 5 cm can electrolytically be treated.

26. The method according to any one of claims 24 and 25, characterized in that the work pieces (**1**) are at first brought into contact with a contacting electrode (**6, 14**), are then passed through an electrolysis region and are then brought again into contact with a contacting electrode (**6, 14**).

27. The method according to claim 26, characterized in that the electrolysis region is chosen to be so short that the electrically conductive structures are in constant electrical contact with one of the contacting electrodes (**6, 14**) as they are being passed through the electrolysis region.

28. The method according to any one of claims 24 - 27, characterized in that the work pieces (**1**) are guided in a horizontal direction of transport through at least one electrolysis region contained in a respective one of the processing modules (**M, M1, M2, M3, M4, M5, M6**), the work pieces (**1**) being conducted into the module through (**M, M1, M2, M3, M4, M5, M6**) at least one passage located on the entrance side thereof and being conducted out of said module (**M, M1, M2, M3, M4, M5, M6**) through at least one passage located on the exit side thereof, said work pieces (**1**) being electrically contacted by means of at least one contacting electrode (**6, 14**) prior to entering the module (**M, M1, M2, M3, M4, M5, M6**) and/or after having exited said module (**M, M1, M2, M3, M4, M5, M6**).

29. The method according to any one of claims 24 - 27, characterized in that the work pieces (**1**) are conducted via the surface of the processing liquid contained in a tank (**12**), into said tank (**12**), to the at least one counter

electrode (**4**) disposed in the processing liquid and from there, via the surface of the processing liquid, out of said tank (**12**) and that the work pieces (**1**) are electrically contacted by means of at least one contacting electrode (**6, 14**) prior to being introduced into the liquid and/or after having exited said liquid.

30. The method according to claim 29, characterized in that the work pieces (**1**) are repeatedly conducted via the surface of the processing liquid into the tank (**12**), through the liquid and via the surface again out of the tank (**12**), being thereby turn round by deviating means (**18**).

31. The method according to any one of claims 24 - 30, characterized in that an electrically non-conductive ion-permeable coating (**13**) is mounted between the at least one counter electrode (**4**) and the work pieces (**1**).

32. The method according to claim 31, characterized in that the work pieces (**1**) are conducted so close alongside the non-conductive ion-permeable coating (**13**) that they touch the work pieces (**1**).

33. The method according to any one of claims 24 - 32, characterized in that the conveying path is inclined to the horizontal and that the at least one contacting electrode (**6, 14**) is continuously or intermittently rinsed.

34. The method according to any one of claims 24 - 33, characterized in that metal is deposited onto the work pieces (**1**).